

REMARKS

Claims 10, 15-16 and 19-20 have been rejected under the judicially created doctrine of obviousness-type double patenting over claims 14 and 24-27 of copending S.N.

10/049,361. The present invention claims a cosmetic composition with two defined components, a polyurethane and a water soluble resin (claim 10). Claims 15, 16 and 19 each further define the polyurethane and claim 20 further defines the type of cosmetic composition.

In contrast, copending S.N. 10/049,361 also claims a cosmetic composition with two defined components, a polyurethane and a silicone polymer (claim 14). Claims 24-27 further define the polyurethane. Thus, the copending case differs in the second component.

The Examiner states that a dependent claim of the present case states that the urethane resin has at least one polysiloxane bond. This is clearly different from having a urethane resin and a silicone polymer. The Examiner's statement that both inventions "teach a composition comprising an amphoteric urethane resin ..., a silicone polymer, and a water soluble resin" is therefore incorrect and the rejection should be withdrawn.

Further, a polyurethane with a siloxane bond will behave differently in a cosmetic composition than a polyurethane and a silicone polymer. In the first case, the "silicone" has been chemically reacted to become part of the polymer by chemical bonding. In the second case, the two components are separate and, as the compatibility of the urethane resin with the silicone polymer is not high and the silicone has stronger hydrophobicity, the urethane and silicone polymer cause micro phase separation so that the silicone is unevenly distributed on the surface to provide smoothness.

Claims 17-19 have been rejected under 35 U.S.C. §112 as being indefinite as "it is not clear how Applicant's resin can be a liquid." Applicants would like to bring to the Examiner's attention that, as defined in the specification (page 14, line 17, *et seq.*, of the published PCT application), "the aqueous liquid means the water dispersion in which amphoteric urethane resin is dispersed as well as the water solution in which amphoteric urethane resin is dissolved completely." Thus, it is clear that it is not actually that the polyurethane is a liquid, but that the urethane is dispersed or dissolved in an aqueous liquid.

Claims 10, 14-15, 17-18 and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Bhatt, et al. (2002/0071811) in view of Kim, et al. (US 6,335,003). As stated by the Examiner, Bhatt teaches hair spray compositions containing a carboxylated polyurethane resin. Amines may be used in the reaction mixture when preparing the polyurethane. However, the reference does not teach the use of tertiary amino groups, nor that the carboxyl group and tertiary amino group should be in the same molecule. Further, Bhatt neither teaches nor suggests that the cosmetic composition contain a water soluble resin in addition to the polyurethane.

Kim does not remedy these deficiencies. Kim teaches the use of cationic polyurethanes in cosmetic compositions. Such polyurethanes are formed from at least one diisocyanate and at least one diol, primary or secondary amino alcohol, primary or secondary diamine or primary or secondary triamine, each with one or more tertiary, quaternary or protonated tertiary amine nitrogen atoms. Thus, to form the polyurethane of the present invention, one skilled in the art would need to not only chose to combine the two references, but also to chose that the polyurethane should be amphoteric (not cationic as in Kim), and to substitute tertiary amino groups out of the long list given by Kim of diol, primary or secondary amino alcohol, primary or secondary diamine or primary or secondary triamine, each with one or more tertiary, quaternary or protonated tertiary amine nitrogen atoms for the optional amine group of Bhatt. There is nothing to suggest to one skilled in the art to chose tertiary amino groups out of the list given to provide the advantages of the instant invention.

Even if one skilled in the art would chose to combine the two references in such manner, they would not result in the present invention. The result of the unlikely choice of the above would be a cosmetic composition containing an amphoteric polyurethane which contains both carboxyl groups and tertiary amino groups. However, there is no teaching or suggestion in either reference that it would be advantageous to have these two groups on the same molecule. Further, neither reference teaches the advantage of including a water soluble resin in the cosmetic composition to increase durability. Applicant does not understand the Examiner's statement "the combined resin is a water-soluble resin," as two components, both the polyurethane and the water soluble resin, are claimed.

Claims 11-13, 16 and 19 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Bhatt, et al. (2002/0071811) in view of Kim, et al. (US 6,335,003) and further in view of de la Poterie, et al. (US 5,972,354) in further view of Bolich, et al. (US 6,100,658). As detailed above, combining Bhatt and Kim would not arrive at the instant invention. As de la Poterie and Bolich are not used to cure the deficiencies, but simply to show other aspects of claims 11-13, 16 and 19 which were not found in Bhatt and Kim.

Thus, the present claims are not obvious in view of Bhatt and Kim, either alone or in view of de la Poterie and Bolich.

Applicant respectfully submits that the Application is now in condition for allowance and requests early action thereon.

Respectfully submitted,



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